

# Executive Summary

## Introduction

Nurses often are referred to as the “backbone” of health care in the United States. They are frequently the most visible practitioners in a hospital, school, home, or long-term care facility, focusing not only on a particular health problem but also on the whole patient and his or her needs and the needs of the family. Registered nurses (RNs), those individuals who have earned at least a three-year diploma, two-year associate’s degree (ADN), or a four-year baccalaureate degree (BSN) in nursing, constitute the largest health care occupation, holding 2.3 million jobs in the United States.<sup>1</sup> Texas had 136,600 RNs (approximately 6 percent of the national total) residing and practicing in the state in August 2003. Of those Texas RNs, 91 percent are female and 77 percent are white. They have a median age of 46 and the median age is increasing at a rate more than twice that of all other occupations. Approximately 75 percent of Texas nurses work in either a hospital (64.3 percent), home health care setting (5.3 percent), or physician’s office (5 percent).<sup>2</sup>

In recent years, Texas, like many states, has experienced a well-publicized nursing shortage. While vacancy rates in some parts of the state suggest that the shortage is abating, the current shortage is different from those of the past and therefore may have a more long-term impact on the availability and quality of health care delivery. In the past, nursing shortages have been caused primarily by market factors such as levels of health care reimbursement. The current shortage is driven primarily by demographic changes. General population growth, the rising proportion of people over age 65, and advances in medical technology are expected to greatly accelerate the future demand for patient care services and, thus, the need for RNs. As a result of these factors, the U.S. Department of Labor has identified RNs for the first time as the top occupation in the country in terms of job growth through the year 2012. *This means that more new jobs are expected to be created for registered nurses than for any other occupation.* And while other health care occupations – particularly those in allied health fields – show higher rates of job growth in Texas, the sheer number of nurses needed to fill new and replacement positions in Texas makes nursing education an important issue for the State of Texas. The Coordinating Board has determined that increasing the number of RN graduates is of sufficient importance to make it a specific target for success in *Closing The Gaps by 2015: The Texas Higher Education Plan*.

## Origins and Scope of the Study

In fall 2003, the Texas Nursing Education Policy Coalition (NEPC) asked the Coordinating Board to “consider a study related to the ability of Texas schools of nursing to respond to the nursing shortage.” While simply stated, the issues surrounding the supply of and demand for nurses are complex. The current and future supply of nurses in Texas is affected by a variety of factors, including the rate at which Texas can enroll students and graduate new professionals from educational programs, the capacity of educational programs to meet market demand, the rate at which nurses migrate in and out of the state, expanding career options for women, demographic trends that affect the size and age of the labor force, and workforce issues such as salary levels and working conditions.

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<sup>1</sup> Source: U.S. Department of Labor, 2004

<sup>2</sup> Source: Board of Nurse Examiners for the State of Texas, 2004

In an effort to address some of the issues within this complex health care environment, Coordinating Board staff have focused this study primarily on students in initial RN licensure degree programs and the faculty who teach in those programs. The study does not address other important issues in nursing, including instruction for licensed vocational nurses, advanced practice nurses (e.g., nurse midwives and nurse practitioners), and the importation and training of foreign-born nurses. It also provides only basic information and recommendations on the nurse practice environment – an important topic deserving its own in-depth review and analysis.

This study is divided into five sections. Section I describes the educational pathways for initial RN licensure and identifies initial RN educational programs in Texas. Section II presents trend data on applications, admissions, enrollments, and graduations in RN nursing programs. Section III examines existing and potential faculty for nursing programs. Section IV describes some of the critical academic issues in nursing education and the Coordinating Board's efforts and initiatives to help increase capacity in nursing programs. Section V profiles RNs practicing in the state.

### Summary of Key Findings

#### *Initial RN Licensure Programs*

With support from the Texas Legislature and other public and private sources, including hospitals, the state's nursing programs in recent years have increased interest in nursing, admitting more students, and graduating more of them. Applications increased by 67 percent from 1997-2003 and by 38 percent since 2001. There were approximately 6,000 qualified applicants to *initial* RN programs who were not offered admission in fall 2003, and while it is unclear how many of those applicants applied to more than one nursing program, (we suspect many), the number suggests that there is a limited capacity in individual programs to accommodate the growing interest in nursing.

Offers of admission and first-year entering enrollments are up by approximately 87 percent for this same period. After a three-year decline, the number of initial RN licensure graduates in 2003 returned to 1997 levels.

The state's nursing programs also should be commended for steadily increasing the ethnic diversity of its graduates at a time when many other health care professions have seen significant declines in enrollments from under-represented groups (possibly affected by restrictions imposed by the *Hopwood* decision).

ADN programs have traditionally produced the majority of graduates in the state (64 percent of total initial RN graduates in 2003), but interest (student applications and admissions) in BSN programs is growing faster. This interest may mirror a movement in other states toward emphasizing baccalaureate degrees as the preferred entry-level credential for nursing. For example, a North Carolina task force recently wrote: "By expanding pre-licensure BSN, RN-to-BSN and accelerated BSN programs, the Task Force envisioned the current ratio of 60% ADN/Diploma and 40% BSN nurses could gradually change over the next 10-15 years to 40% ADN/Diploma and 60% BSN."<sup>3</sup> If Texas were to continue to mirror these trends, there would be significant financial implications for the State and for students.

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<sup>3</sup> Source: Task Force on the North Carolina Nursing Workforce, 2004

Applications and admissions are increasing at a faster rate than increases in graduation. That is due, in part, to the lag time between enrollment and graduation, but it also follows a general trend in higher education: students are taking longer to graduate. This failure of production to closely follow increased enrollments may also indicate problems with student retention in some initial RN licensure programs. Student retention data are not readily available from the nursing programs. If standardized data were available, educators could target attrition problems at individual schools and identify best practices among schools with high retention rates. CB staff will further examine this issue and develop recommendations if warranted.

Despite the growing competitiveness for admissions to nursing programs, schools had 405 vacant seats in fall 2003, fewer than in the last four years but more than in the late 1990s. Vacancies in high-demand programs suggest the need for better coordination of the application and admissions process among nursing programs. An analysis of initial RN licensure programs delivered via distance education also showed a lack of statewide coordination.

### *Nursing Faculty*

In an April 2004 survey, nursing deans and directors said that to continue to increase enrollments to meet demand of students alone, they would need more faculty, and faculty are hard to find. (One indication of that problem is shown on the first bar graph Section III.) With enrollments climbing, the average entering class size of RN licensure programs increased 108 percent from 1999 to 2003, while average FTE faculty at these programs increased by only 13 percent for this same period. These disparities probably cannot continue to increase without affecting educational quality.

Furthermore, in fall 2003, “lack of budgeted faculty positions” was the most frequently stated reason that nursing programs gave for not admitting additional qualified applicants. Other report findings support the contention of nursing program directors that “lack of nursing faculty” appears to be one of, if not the greatest, impediment to increasing capacity in nursing programs.

An analysis of current faculty show that 76 percent have a master's degree in nursing or in another field. If national trends are true for Texas faculty, nurses become faculty later in life. The median age of doctoral graduates in nursing was 46.2 in 1999. Given that the mean age of retirement of full-time faculty in 2002 was 61.5 years, the number of productive teaching and research years are curtailed because of nurses' relatively greater age at graduation.

Faculty salaries in academic settings are also a deterrent to recruitment and retention. Nursing deans and directors say that this is the case at all levels of faculty rank in most academic settings, whether they are recruiting a master's degree nurse at the local level or a doctorally prepared nurse through a national search. Staff analysis shows that average salaries for nursing faculty at community colleges and at instructor levels at universities are particularly low as compared to those salaries earned by practicing nurses. Salaries likely need to be increased if the state wants to retain existing faculty and hire new faculty to increase enrollment capacity.

The number of graduates from masters and doctoral degree programs decreased by 23 percent from 1994 to 2003 – a 10-year low in the number of graduates. The three health-related institutions that offer doctoral degrees – representing one-half of all Texas institutions offering the doctoral degree in nursing -- have produced only 44 graduates during this period.

Fall 2003 enrollment data show that schools are recruiting more students into graduate nursing programs; however, nursing education, a specialization that may most likely indicate student interest in becoming nursing faculty directly after graduation, represents less than 2 percent of all students enrolled in master's level programs. In contrast, practice-based specializations such as clinical nurse specialists, nurse practitioners, nurse midwives, and nurse anesthetists represent 70 percent of the students enrolled in master's level programs. Student interest in these other specializations most likely reflects the perceived status of those practitioners within nursing, the demand for advanced practice nurses, and the salaries they are paid. Nursing programs or the state should provide incentives for students to choose nursing education as a specialization in master's programs.

### *Special Issues in Nursing Education*

Earlier this spring Coordinating Board staff surveyed the state's nursing deans and directors about their opinions on the nursing shortage and issues affecting nursing education and practice. Their responses indicated their belief that their ability to hire new nursing faculty was the greatest impediment to increasing enrollments in nursing programs. "Lack of parity between faculty salaries and practice salaries in local area or region" was seen as the greatest obstacle in hiring. Academic preparation and retention of incoming students also was a concern of these nursing educators, especially those in the Border region and in Southeast Texas. Deans and directors saw more money, particularly more state formula funding, as the solution to these problems.

Staff also asked the deans and directors why they thought nurses leave the profession. In general, respondents blamed stressful working conditions, although lack of respect, unattractive work hours, and lack of autonomy also were considered important factors in attrition. Some people believe that these issues have worsened with the implementation of managed care.

Other Coordinating Board studies provided insights into costs and staffing requirements associated with potential enrollment increases. In one cost study, staff estimated that the state's 66 public nursing programs could increase enrollments by 16 percent (2,060 students) at a cost of \$14.2 million. This amount represents the cost of hiring 211 new nursing faculty, while all other space constraints (such as facilities and clinical sites) remained the same. Staff also looked at actual costs of operating nursing programs in comparison to current formula funding weights.

The Coordinating Board administers a number of programs and activities that promote innovation in nursing education and articulation among the state's nursing programs. Several policies resulting from these activities, such the development of a Field of Study Curriculum for nursing, will need further monitoring by Board staff. Professional organizations such as the Texas Nurses Association have been promoting new strategies to help coordinate common activities among nursing programs, stretch existing faculty and resources, build partnerships between clinical facilities and nursing programs, and increase capacity at individual schools. These concepts are the focus of a grants competition to be conducted in fall 2004 and supported by funds from the Texas Tobacco Lawsuit Settlement.

### *Nursing Practice*

Finally, a review of nurse practice data showed that 136,600 nurses reside and practice in Texas. They are predominately female (91 percent); white (77 percent) and 40 years old or older (61 percent). The majority of nurses have a diploma or associate degree (51

percent) and work as staff nurses (58 percent) in hospital settings (64 percent). The High Plains, Gulf Coast, and the Metroplex regions have the most nurses per 100,000 population. South Texas (particularly the areas of the Lower Rio Grande Valley and the Upper Rio Grande Valley) have the fewest nurses per 100,000 population. Developing educational programs at all levels of instruction and practice, and facilitating partnerships between providers and higher education institutions, may help retain nurses in practice and eventually recruit some of them to academic positions.

### Recommendations

As a result of these and other findings, Coordinating Board staff makes the following recommendations:

<b>RECOMMENDATIONS</b> (High priority recommendations are shaded)	<b>ACTION TO BE TAKEN BY . . . .</b>					
	Legislature	THECB	Educational Institutions	Employers	Nursing Community	Other
<b>RN Education Programs</b>						
Set statewide goals for increasing the number of initial RN licensure graduates and identify funding required to produce these results.		x	x		x	
Study retention rates of nursing programs and establish a forum for promoting best practices.		x	x		x	
Increase financial aid funding for the Professional Nursing Aid Program from \$526,288 to \$3.5 million for the biennium (a reallocation of \$1.5 million in existing funds and \$1,473,712 in new funds.) Cost: \$ 1,473,712.	x	x				
Establish a statewide or regional application and admissions center(s) for initial RN licensure programs. Cost: \$250,000 for initial start-up in first two years.	x		x		x	x
Continue to study articulation agreements between community colleges, universities, and health-related institutions to determine and promote best practices.		x	x			
Monitor and enforce compliance by nursing programs with the Field of Study Curriculum.		x				
Continue to support research in nursing education through the Nursing, Allied Health, and Other Health-related Education Grant Program, a program funded from proceeds of the State's Tobacco Lawsuit Settlement.	x	x				
Promote innovation in nursing education through the "regionalization" of common administrative and instructional functions, interdisciplinary instruction, pooled or shared faculty, and new clinical instruction models to maximize use of existing resources and faculty.		x	x	x	x	x
Continue to develop new accelerated and alternate entry degree programs to speed the graduation of nurses and to help attract students from underrepresented groups to the profession.	x	x	x	x	x	x
Study K-12 curricula and make recommendations to better prepare college-bound students for health care careers.	x		x		x	
Provide special item funding to increase enrollments and retention in nursing programs in South Texas (especially in areas outside Bexar County), where practice to population ratios are the worst in the state. Cost: \$2.5 million for the biennium.	x		x	x		

<b>RECOMMENDATIONS</b> (High priority recommendations are shaded)	<b>ACTION TO BE TAKEN BY . . . .</b>					
	Legislature	THECB	Educational Institutions	Employers	Nursing Community	Other
Better coordinate distance education offerings to avoid overlap of programs, share faculty expertise and increase educational opportunities in areas of the state (especially in parts of West Texas) where new degree programs or special training are needed.		x	x	x	x	
Review funding for nursing programs and particularly for nursing faculty to ensure that programs have adequate support to maintain quality while increasing enrollments.			x			
<b>RN Education Faculty</b>						
Establish incentives such as a loan repayment program for graduate students, particularly those from underrepresented groups, who are interested in careers in nursing education. Cost: \$ 1.4 million for the biennium.	x	x	x			
Make filling vacant nursing faculty positions and creating new faculty positions at competitive salaries a top priority in budgeting decisions.			x			
Increase ADN faculty salaries, and, in some cases, instructor salaries at universities, to be more competitive with nurse practice salaries. Cost: \$11 million for the biennium.	x		x			
<b>Educational Opportunities for RNs in Practice Settings</b>						
Reward nurses (e.g., academic credit or a stipend) who serve as preceptors for nursing education programs.			x	x		
Build a positive work environment that promotes continuing education and makes accommodations such as offering flexible work schedules for nurses with young children and creating new roles for older nurses.				x	x	
Encourage joint appointments for practicing nurses to teach in nursing programs.			x	x		x
Develop standardized, centrally-delivered coursework to prepare practicing nurses for teaching positions.			x	x	x	x
Continue to provide tuition reimbursement programs to encourage employees to pursue nursing education.				x	x	
Examine the need for additional RN-refresher courses and the effectiveness of existing refresher courses in encouraging nurses to re-enter the profession.			x	x	x	

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